I. AMENDMENTS TO CLAIMS

Claims 1-31 (Cancelled).

Claim 32 (Presently Amended): A method of detecting the presence of an analyte in a sample, the method comprising:

contacting said sample with a pore assembly comprising one or more pore-subunit polypeptides sufficient to form a pore, the pore comprising at least a first channel, wherein at least one of said pore-subunit polypeptides is a modified pore-subunit polypeptide comprising a pore-subunit polypeptide covalently linked to ~~a~~ an exogenous sensing moiety capable of preferentially binding with ~~the~~ a specific analyte; and

detecting an electrical current through at least a first channel, wherein a modulation in current compared to a current measurement in a control sample lacking said analyte indicates the presence of said analyte in said sample.

Claim 33 (Original): The method of claim 32, wherein said electrical current is detected through a single channel.

Claim 34 (Original): The method of claim 32, wherein said electrical current is detected through at least two channels.

Claim 35 (Original): The method of claim 32, wherein said analyte is known.

Claim 36 (Original): The method of claim 32, wherein said analyte is unknown.

Claim 37 (Original): The method of claim 32, wherein said analyte is an oligonucleotide.

Claim 38 (Original): The method of claim 32, wherein the amount of said analyte in said sample is quantitated.

Claims 39-42 (Cancelled)

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Claim ~~43~~ 44 (New) The method of claim 32, wherein the exogenous sensing moiety is a polymer.

Claim ~~44~~ 45 (New) The method of claim 32, wherein the exogenous sensing moiety is an oligonucleotide or a polynucleotide.

Claim ~~45~~ 46 (New) The method of claim 32, wherein the exogenous sensing moiety is a single stranded DNA molecule.

Claim ~~46~~ 47 (New) The method of claim 32, wherein the modified pore-subunit polypeptide is a pore-subunit polypeptide covalently linked to an oligonucleotide.

Claim ~~47~~ 48 (New) The method of claim 46 wherein the modified pore-subunit polypeptide is a staphylococcal alpha hemolysin pore-subunit polypeptide covalently linked to an oligonucleotide.

II. DISCUSSION OF THE AMENDMENTS

Claims 32-38 and 43-47 are pending in the application. Claim 32 has been amended by the present amendment. Claims 43-47 have been added by the present amendment.

Claim 32 has been amended to more clearly point out that the presently claimed covalently linked sensing moiety is an exogenous sensing moiety. Support for this amendment is found in the specification on p. 3, ll. 10-18:

> The "covalent attachment" of one or more sensing moieties to pore-forming or pore-subunit polypeptides to create the "modified, pore-forming, sensing pore-subunit polypeptides" of the present invention means that at least a first "*exogenous*" sensing moiety is covalently attached to the polypeptide. This differs from pore-subunit polypeptides in which the only modification(s) is one or more mutations within the amino acid sequence of the polypeptide itself. Although the sensing moiety is engineered into such polypeptides, in contrast to the native polypeptide sequence, such engineered, modified or "mutant" polypeptides still comprise an "endogenous" sensing moiety.